

18. (Twice Amended.) A purified polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence of SEQ ID NO:1,
- b) a naturally-occurring amino acid sequence having at least 95% sequence identity to the sequence of SEQ ID NO:1, wherein said amino acid sequence encodes a polypeptide whose expression is upregulated by 2,3,7,8-Tetrachlorodibenzo-p-dioxin,
- c) a biologically-active fragment of the amino acid sequence of SEQ ID NO:1, wherein said fragment encodes a polypeptide whose expression is upregulated by 2,3,7,8-Tetrachlorodibenzo-p-dioxin, and
- d) an immunologically active fragment of the amino acid sequence of SEQ ID NO:1 wherein said fragment generates an antibody that specifically binds to the polypeptide encoded by SEQ ID NO:1.

19. An isolated polypeptide of claim 18, having a sequence of SEQ ID NO:1.

20. An isolated polynucleotide encoding a polypeptide of claim 18.

21. An isolated polynucleotide encoding a polypeptide of claim 19.

22. An isolated polynucleotide of claim 21, having a sequence of SEQ ID NO:2.

23. An expression vector comprising a promoter sequence operably linked to a polynucleotide of claim 20.

24. A host cell transformed with a recombinant polynucleotide of claim 23.

25. A method for producing a polypeptide of claim 18, the method comprising:

- a) culturing a host cell under conditions suitable for expression of the polypeptide, wherein said host cell is transformed with an expression vector, and said

expression vector comprises a promoter sequence operably linked to a polynucleotide encoding the polypeptide of claim 18, and

b) recovering the polypeptide so expressed.

26. A method of claim 25, wherein the polypeptide has the sequence of SEQ ID NO:1.

27. An isolated polynucleotide comprising a sequence selected from the group consisting of:

- a) a polynucleotide sequence of SEQ ID NO:2,
- b) a naturally-occurring polynucleotide sequence having at least 90% sequence identity to the sequence of SEQ ID NO:2,
- c) a polynucleotide sequence complementary to a),
- d) a polynucleotide sequence complementary to b) and
- e) a ribonucleotide equivalent of a)-d).

28. An isolated polynucleotide comprising at least 60 contiguous nucleic acids of claim 27.

29. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 27, the method comprising:

- a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and
- b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

30. A method of claim 29, wherein the probe comprises at least 60 contiguous nucleotides.

31. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 27, the method comprising:

- a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and
- b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

32. An isolated antibody which specifically binds to a polypeptide of claim 18.

33. A pharmaceutical composition comprising an effective amount of a polypeptide of claim 18 and a pharmaceutically acceptable excipient.

34. A pharmaceutical composition of claim 34, wherein the polypeptide has the sequence of SEQ ID NO:1.

35. A method for treating a disorder which is associated with decreased expression of the polypeptide of claim 18 comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition comprising said polypeptide and a pharmaceutically acceptable excipient.

36. A purified agonist which specifically binds to and modulates the activity of the polypeptide of claim 18.

37. A purified antagonist which specifically binds to and inhibits the activity of the polypeptide of claim 18.

38. A pharmaceutical composition comprising the antagonist of claim 37 in conjunction with a suitable pharmaceutical carrier.

39. A method for treating a disorder which is associated with increased expression of the

polypeptide of claim 18 comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition comprising an antagonist which specifically binds to and inhibits the activity of said polypeptide.

40. A method for screening a compound for effectiveness as an agonist of a polypeptide of claim 18, the method comprising:

- a) exposing a sample comprising a polypeptide of claim 18 to a compound, and
- b) detecting agonist activity in the sample.

41. A method for screening a compound for effectiveness as an antagonist of a polypeptide of claim 18, the method comprising:

- a) exposing a sample comprising a polypeptide of claim 18 to a compound, and
- b) detecting antagonist activity in the sample.

42. A method for screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a sequence of claim 21, the method comprising:

- a) exposing a sample comprising the target polynucleotide to a compound, and
- b) detecting altered expression of the target polynucleotide.